REMARKS

Applicant has cancelled the non-elected claims, but reserves the right to file one or more further applications covering the subject matter of the cancelled claims.

Of the claims under consideration, Applicant has amended Claim 1 to include the limitations of original Claim 2. Claim 2 has been cancelled as redundant. Applicant has also cancelled Claim 7, and has added new Claims 25 and 26.

The pending claims are therefore Claims 1, 3-6, 25, and 26. Applicant submits that these claims are allowable for the reasons given below.

The present invention is a fermentation process in which substantially pure oxygen is injected into the fermentation vessel, and in which the pressure of the oxygen is the only motive force that causes oxygen to flow through the system. That is, the method does not use any blowers, pumps, or compressors to move oxygen through the system.

The above features are not found in Donofrio, the only reference applied to the claims.

First, Donofrio does not teach a system which uses pure oxygen. On the contrary, Donofrio states, at column 1, lines 65-67, that pure oxygen gas has been tried, but that the use of pure oxygen is "too expensive". Thus, although the disclosure contains, at most, a vague disclosure of prior use of pure oxygen in fermentation, the system described by Donofrio does not use pure oxygen, and the reference in fact recommends against it.

Throughout the specification of Donofrio, the gas is described as air, not pure oxygen. (See, for example, column 3, lines 36 and 55, which clearly state that the gas introduced into the vessel is air).

Secondly, the system of Donofrio injects a mixture of liquid and air into the vessel 10, with the aid of pump 18 and blower 26. In the present invention, there is no pump and no blower. The pure oxygen used in the present invention moves through the system due to pressure alone. This feature reduces the number of moving parts of the system, and thereby reduces the cost of operating the fermentation process.

Claim 1 has been amended to contain the limitations of original Claim 2. Thus, Claim 1 now requires not only that substantially pure oxygen be used, but also that the oxygen is moved through the system solely due to the pressure in the oxygen supply, i.e. without a pump or blower. These features are neither taught nor suggested by Donofrio. As noted above, Donofrio recommends against the use of pure oxygen, and the system of Donofrio requires a pump and a blower to move an air-liquid mixture through the system. Claim 1 is therefore believed allowable over Donofrio.

New Claim 25 recites explicitly that the injecting step is performed without a blower or compressor. Claim 25 is believed to distinguish over Donofrio for this additional reason.

New Claim 26 recites that the injecting step is performed without mixing the oxygen with a liquid. This recitation further distinguishes over Donofrio, which teaches the mixing of air and the aqueous solution from the vessel, the mixture being injected into the vessel through jet mixer 24. Claim 26 is therefore also believed allowable over Donofrio.

The claims not explicitly discussed above depend, directly or indirectly, from Claim 1, and are therefore also believed allowable.

For the reasons given above, Applicant submits that the claims, as

amended, define a patentable invention. Applicant therefore requests reconsideration by the Examiner and early favorable action.